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BUREAU OF MINES MINERALS YEARBOOK

The Mineral Industry of North Dakota

UNITED STATES DEPARTMENT OF THE INTERIOR

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UNITED STATES DEPARTMENT OF THE INTERIOR • Manuel J. Lujan, Jr., Secretary

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This publication is a chapter from the current Bureau of Mines Minerals Yearbook, comprising *Volume I, Metals and Minerals; Volume II, Area Reports: Domestic; Volume III, Area Reports: International.* The separate volumes of the Yearbook are sold by the Superintendent of Documents, Washington, D.C. 20402.

The Mineral Industry of North Dakota

This chapter has been prepared under a Memorandum of Understanding between the Bureau of Mines, U.S. Department of the Interior, and the North Dakota Geological Survey for collecting information on all nonfuel minerals.

By Leon E. Esparza[1]

The value of North Dakota's nonfuel mineral production was $26.3 million, an increase of about 26% compared with 1986 figures. The State ranked 48th nationally in nonfuel mineral production, accounting for less than 1% of the U.S. total. Lime contributed the greatest amount to the State's nonfuel mineral value, accounting for 45% of the total. Other commodities produced, in order of decreasing value, included construction sand and gravel, salt, crushed stone, clays, industrial sand and gravel, and gem stones. Peat was sold from stockpiled material, and elemental sulfur was recovered from processing natural gas.

Most of the State's nonfuel mineral production was used in construction. A total of 1,970 residental units were authorized in 1987, a 16% increase over the number issued in 1986. Valuation of nonresidential construction in 1987 was $88.7 million, a 10% increase over that of 1986. However, value of State road contract awards fell 7% to $94.0 million.

Employment.—Average annual employment in the nonfuel minerals industry during 1987 was 400, an 8% increase over that reported for 1986.

Table 1.—Nonfuel mineral production in North Dakota[1]

Mineral	1985		1986		1987	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Clays ..... thousand short tons	W	W	W	W	50	$100
Gem stones	NA	e$2	NA	$2	NA	2
Lime ..... thousand short tons	56	5,562	74	7,359	127	11,912
Sand and gravel (construction) ..... do	e6,900	e13,800	5,135	10,741	e4,900	e10,200
Combined value of peat, salt, sand and gravel (industrial), stone (crushed miscellaneous), and values indicated by symbol W	XX	4,820	XX	2,700	XX	4,097
Total	XX	24,184	XX	20,802	XX	26,311

[e]Estimated. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined value" figure. XX Not applicable.
[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

Table 2.—Nonfuel minerals produced in North Dakota in 1986, by county[1]

County	Minerals produced in order of value
Adams	Sand and gravel (construction)
Barnes	Do.
Benson	Do.
Billings	Do.
Bottineau	Peat.
Bowman	Salt, sand and gravel (construction)
Burke	Sand and gravel (construction)
Burleigh	Do.
Cass	Do.
Dickey	Do.
Eddy	Do.
Foster	Do.
Grand Forks	Do.
Grant	Sand (industrial)
Hettinger	Sand and gravel (construction)
Kidder	Do.
Logan	Do.
McIntosh	Do.
McLean	Do.
Morton	Clays, sand and gravel (construction)
Pembina	Lime.
Pierce	Sand and gravel (construction)
Ramsey	Do.
Ransom	Do.
Renville	Do.
Richland	Lime, sand and gravel (construction)
Rolette	Sand and gravel (construction)
Sheridan	Do.
Stark	Do.
Stutsman	Do.
Towner	Do.
Traill	Lime, sand and gravel (construction)
Walsh	Sand and gravel (construction)
Ward	Do.
Wells	Do.
Williams	Salt, sand and gravel (construction)
Undistributed[2]	Stone (crushed), gem stones.

[1]No production of nonfuel mineral commodities was reported for counties not listed.
[2]Data not available by county for minerals listed.

REVIEW BY NONFUEL MINERAL COMMODITIES

INDUSTRIAL MINERALS

Clays.—Clay production and value decreased from those reported in 1986. Hebron Brick Co. in Morton County was the sole producer in the State.

Lime.—Production and value of lime increased 72% and 62%, respectively, in 1987 over those reported in 1986. Most of the production was used to process sugar beets during a longer refining season than normal for the second consecutive year.

Peat.—Peat Products Co., Bottineau County, sold stockpiled peat and posted a moderate increase in value of sales for 1987.

Salt.—Salt production and value in 1987 increased over those reported in 1986. A sale of the Diamond Crystal Salt Co. was near completion by yearend. International Salt Co., a subsidiary of Akzo NV, a Dutch chemical corporation, reportedly was to purchase Diamond Crystal for $65 million.[3]

Operations in North Dakota and three other States would be included in the transaction.

Sand and Gravel (Construction).—Construction sand and gravel production is surveyed by the U.S. Bureau of Mines for even-numbered years only; this chapter contains estimates for 1985 and 1987 and actual data for 1986. Data for odd-numbered years are based on annual company estimates.

Production and value were estimated to have decreased about 5% in 1987 compared with 1986 figures.

Stone (Crushed).—Stone production is surveyed by the U.S. Bureau of Mines for odd-numbered years only; this chapter contains actual data for 1985 and 1987 and estimates for 1986. Data for even-numbered years are based on annual company estimates.

[1]State Mineral Officer, Bureau of Mines, Minneapolis, MN.

[2]Daily Herald (Williston, ND). Diamond Crystal Has a Definitive Sale Agreement. Sept. 18, 1987.

Table 3.—Principal producers

Commodity and company	Address	Type of activity	County
Clays:			
Hebron Brick Co	Box 5 Washington Ave. East Hebron, ND 58638	Pit and plant	Morton.
Lime:			
American Crystal Sugar Co	Box 190 Drayton, ND 58225	Shaft kilns at beet sugar refineries.	Pembina and Traill.
Minn-Dak Farmers Co-op	Wahpeton, ND 58075	do	Richland.
Peat:			
Peat Products Co	821 4th St. Bismarck, ND 58501	Bog	Bottineau.
Salt:			
Diamond Crystal Salt Co	916 South Riverside St. Clair, MI 48640	Solids and evaporated brines.	Williams.
Sand and gravel:			
Construction (1986):			
Badlinger Sand & Gravel Co	Box 306 Dickinson, ND 58601	Pits and plants	Stark.
Bradshaw Gravel Supply Inc	Box 1677 Grand Forks, ND 58206	do	Grand Forks, Rolette, Walsh.
Des Lacs Sand & Gravel Co	Box 66 Des Lacs, ND 58733	do	Various.
Fisher Sand & Gravel Co	Box 1034 Dickinson, ND 58601	do	Do.
Northern Improvement Co	Box 1254 Bismarck, ND 58501	do	Burleigh.
Schrock Construction Inc	3009 South Broadway Minot, ND 58701	do	Various.
Industrial:			
Dakota Silica Inc	Box 233 Elgin, ND 58533	Pit and plant	Grant.
Stone (crushed):			
Helm Bros. Inc	Box 787 Mandan, ND 58554	Pit	Mercer.
The North American Coal Corp	Box 299 Beulah, ND 58523	Pits	Do.
Sulfur (recovered):			
Chevron USA Inc	Box 1589 Tulsa, OK 74101	Plant	Billings.
Koch Hydrocarbon Co	Box 2256 Wichita, KS 67201	Plants	McKenzie and Williams.
Phillips Petroleum Co	1140 Adams Bartlesville, OK 74004	Plant	Williams.
Western Gas Processors Ltd	10701 Melody Dr. Northglenn, CO 80234	do	Billings.

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